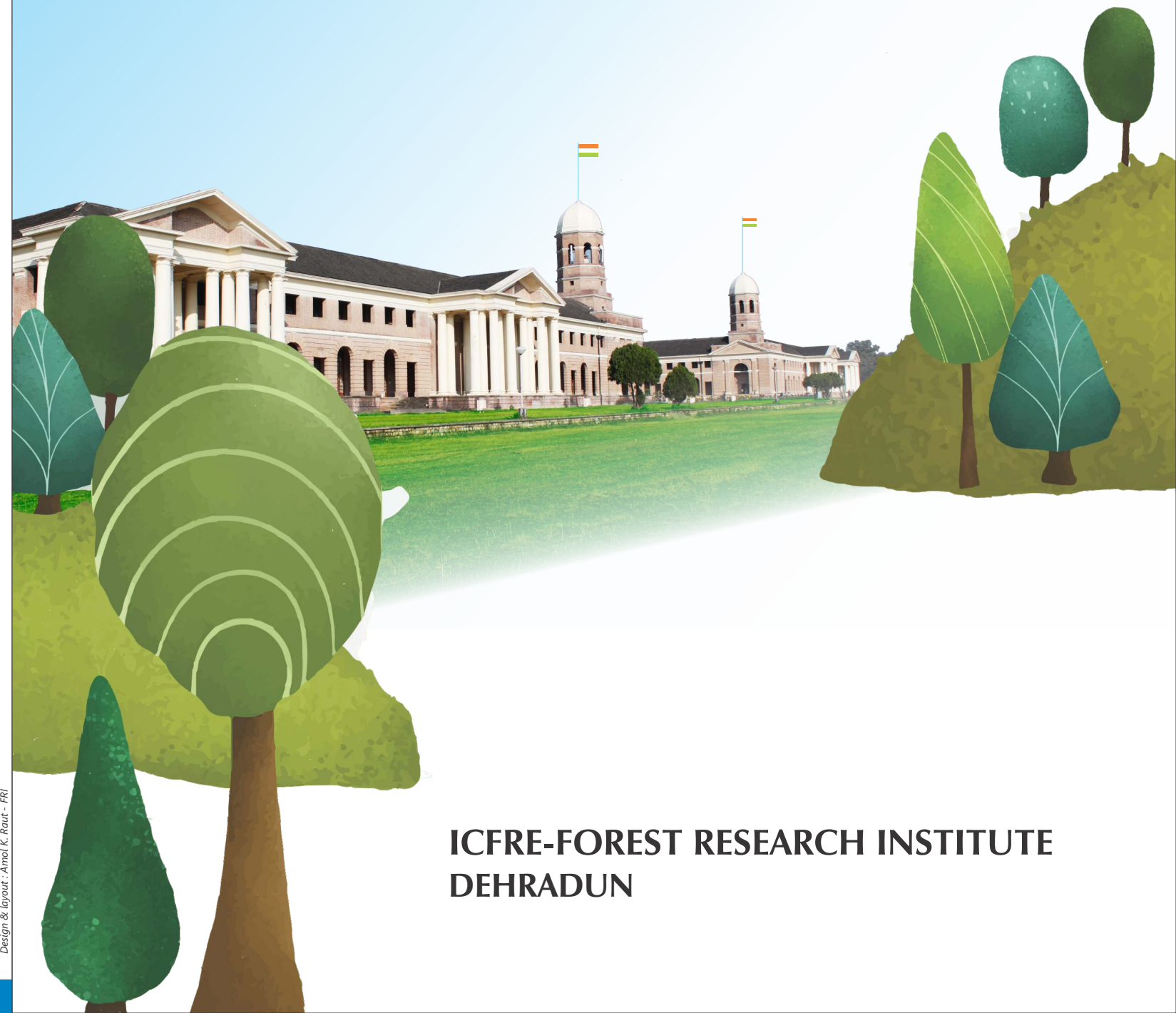




CALENDAR SHORT TERM TRAINING COURSES

2024



Published by
The Director,
I.C.F.R.E.-Forest Research Institute, Dehradun
P.O. New Forest, Dehradun – 248006 (India)
Telephone : 0135 2755277, Telefax: 2756865
email : dir_fri@icfre.org website : <http://fri.icfre.gov.in>

Design & layout: Amol K. Raut - FRI

**ICFRE-FOREST RESEARCH INSTITUTE
DEHRADUN**

Short Term Training Courses at ICFRE-FRI, Dehradun

ICFRE-Forest Research Institute (FRI), Dehradun has its roots in the erstwhile Imperial Forest Research Institute and College established in 1906 to organize and lead forestry research in the country. Its history is synonymous with the evolution and development of scientific forestry not only in India but in the entire Indian subcontinent. The institute also imparted training to forest officers and forest rangers in the country and after independence it was renamed as Forest Research Institute. In 1988, FRI and its research centers were brought under the administrative umbrella of Indian Council of Forestry Research & Education (ICFRE) under the Ministry of Environment, Forests and Climate Change, Government of India.

Training as a part of extension is an important activity of the institute and plays a major role towards capacity building of the stakeholders. The institute organizes Short Term Training Courses (STTC) in different disciplines as per the requirement of the stakeholders with the aim of sharing the research developments in forestry and transferring the latest technical knowhow. In addition to the Short Term Low-Cost Training Courses, the Institute also organizes low-cost training courses mentioned separately in this brochure.

These trainings are imparted by highly qualified, experienced and skilled professionals and researchers. The Institute has a well-developed infrastructure of laboratories, computer center, library, bambusetum, herbarium, arboreta, nurseries and experimental fields for these trainings. Excellent boarding & lodging facilities are available at the Institute.

The details of the training are given below

1. Application of remote sensing, GIS and GPS in forest resource assessment: The course will provide training on Remote Sensing (RS): Principles of remote sensing; Indian Remote Sensing Satellite and Sensors, Recent FS&GIS technological trends. Licensed and open-source software Sources free satellite data will be used for imparting hands on exercise for the training. Basic image handling procedures like layer stacking and mosaicking, forest cover mapping, Geo-referencing and geocoding, sub setting and mosaicking' digitization of boundaries of important features; entry of spatial and non-spatial data land use and land cover classification, transfer of GPS data in GIS database map composition & geographical information System (GIS) introduction to GIS; spatial and non-spatial database for GIS analysis; Spatial (Vector and Raster) and non-spatial (Hierarchical, Network and RDBMS) data models; coordinate systems, datum and projections; Digital elevation models and their applications; Application of GIS. Hand on training for using "Google earth" service Global Positioning system (GPS); Overview and principles of GPS and other Navigation System surveying methods and field data integration with GIS.

2. Classification and grading of timber : The course aims at providing complete insight on classification of timber, strength properties determination, measurement and evaluation of defects, defect detection through ultrasonic and grading of timber. In addition to these, lectures will also be delivered on wood seasoning, wood preservation and identification of wood species.
3. Butterfly Monitoring & Butterfly Inclusive Tourism as a Source of Livelihood: The course will impart training on Importance of butterflies, habits of butterflies, diversity of butterflies in India, Identification of butterflies-Taxonomy & literature, butterflies in National Forest Insect Collection, FRI, Dehradun, Monitoring & Sampling butterflies for research, Butterflies & Climate change, Butterflies, forest types, biodiversity conservation & land use planning, Butterfly inclusive ecotourism models worldwide with livelihood opportunities & Creating butterfly nature trails & gardens.
4. Skilled development in parataxonomy: The proposed training programme of Forest Botany will broadly cover collection and identification of different plant group, Use of forest flora in plant identification, Botanical Nomenclature and its significance in forestry, Herbarium and Herbarium Techniques, Herbarium and its function; Methodologies for plant herbarium collection, preservation, identification and incorporation of specimens to the herbarium, Plant conservatories (Herbarium, Botanical Garden, Pathological and Entomological problems, Physiological stress and soil condition, Health categorization of trees, Risk assessment, Preventive and remedial measures & Field visit.
5. Timber structure and design : The course aims at promoting skill India Mission by providing basic details of timber as a structural material and its application in designing different timber structure. The course shall develop the entrepreneurial skills by providing deep insights on various timber joints and hands on training to the participants on construction of structural designs. Key highlights of the course include structural properties of sawn timber with respect to other building materials, design and design process, design of timber joints and connections etc. Hands on training on design of some utility timber structures like balcony rails, parking spaces, fire watch towers will also be given.
6. Formaldehyde Emission by Perforator Method (IS13745): The training will provide inputs on Determination of formaldehyde emission in Plywood and particle board; Sample preparation and digestion.
7. Seasoning and Preservation of wood and bamboo: The training will provide inputs on Importance of wood seasoning, equilibrium moisture content, moisture contents values and tolerances for end products, stacking of timber in seasoning kilns, drying stresses; seasoning schedules, seasoning kilns (solar, steam-heated, vacuum, dehumidification, microwave vacuum kilns etc), causes and their removal, economics of kiln drying, theory and hands on training on importance of wood and bamboo preservation, concepts of durability and treatability of wood and bamboo, wood and bamboo preservatives and their types, wood and bamboo treatments methods-pressure and non-pressure methods, methods of determination of penetration and retention of preservatives.
8. Plywood manufacture: Plywood raw materials both wood and adhesive; Manufacture of veneer, plywood, black board and Flush doors, their properties and testing; preparation and testing of adhesives; Plywood, Laminated of adhesives, plywood, Laminated Veneer Lumber (L.V.L.); Compreg, Impreg and other panel products.

ICFRE- Forest Research Institute, Dehradun Calendar of Short Term Training Courses - 2024

Name of the Course	Name of course Director & Division	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1.Application of remote sensing, GIS and GPS in forest resource assessment	Dr. Neelesh Yadav, Scientist-E & In-Charge: GIS Centre, IT Discipline, Ph.No.: 01352224233 Mob.: 9411385495 E-Mail: neeleashy@gmail.com					01-03							
2.Classification and grading of timber	Mr. Rajesh Bhandari, Scientist-F, Timber Mechanics & Engineering Dis. Forest Products t Division Ph.No.: 0135222-4395 E-mail :bhandarir@icfre.org									23-27			
3.Butterfly Monitoring & Butterfly Inclusive Tourism as a Source of Livelihood	Dr. Arun Pratap Singh, Scientist-G & Head Forest Protection Division Ph.No.: 9068049888 E-mail: singhap@icfre.org									10-13			
4.Skilled Development in Para taxonomy	Dr. Ranjana Negi, Scientist –E & HEAD, Forest Botany Division Ph.No.: 0135-222-4385 Email: negirk@icfre.org											18-22	
5.Timber structure and design	Mr. Ashwath Hegde, Scientist-B Timber Mechanics & Engineering Dis. Forest Products t Division Ph.No.: 6362850398 E-mail: ashwathh@icfre.org.											19-23	
6.Formaldehyde emission by perforator method (Is13745)	Dr. Ranjana Yadav, Scientist- E, Forest Product Division Ph. No.: 0135-222-4445 E-mail: ryadav@icfre.org							24-26					
7.Seasoning and Preservation of wood and bamboo	Dr. Shailendra Kumar, Scientist-D, Wood Seasoning Dis. Forest Products Division, ICFRE-FRI Ph.No.: 0135-222-4423 , 9837086111 E-mail: kumarsro@icfre.org										21-25		
8. Plywood Manufacture	Dr. D.P. Khali, Scientist- G, Forest Product Division Ph. No.: 0135-222-4451 E-mail: khalidp@icffe.org				29 -30	01-03							

Short Term Training Courses-2024 at ICFRE-CSFER, Prayagraj

1.Essentials of clonal forestry	Dr. Sanjay Singh, Scientist-G (CSFER), Prayagraj (UP) Ph. No.: 9430366286 E-mail: sanjay.drsmith@gmail.com						18-20						
2.Lac cultivation for improving livelihood	Dr. Sanjay Singh Scientist-G (CSFER), Prayagraj (UP) Ph. No.: 9430366286 E-mail: sanjay.drsmith@gmail.com				23-25								
3.Techniques for nursery and plantation management	Dr. Anita Tomar, Scientist-F (CSFER), Prayagraj (UP) Ph. No.: 6386193844 E-mail: anitatomar@icfre.org.									17-19			
4.Cultivation, processing, value addition, marketing & certification of medicinal plants	Dr. Anita Tomar, Scientist-F (CSFER), Prayagraj (UP) Ph. No.: 0532-2440795 E-mail: anitatomar@icfre.org.										15-17		
5.Bioremediation of industrial waste and problematic soil sites:	Dr. Kumud Dubey, Scientist-E (CSFER), Prayagraj (UP) Ph. No.Ph. No. 0532-2440795 E-mail: dkumud@yahoo.com					14-16							
6.Bamboo Propagation, Management and Utilization:	Sh. Alok Yadav, Scientist-E (CSFER), Prayagraj (UP) Ph. No: 9411166881 E-mail: alokyadav@icfre.org											04-06	
7.Agroforestry for sustainable land use and livelihood improvement:	Dr. Anubha Srivastav, Scientist-D (CSFER), Prayagraj (UP) Ph. no: 0532-2440795 E-mail: anubhasri_csfer@icfre.org												03-05
8.Bio-diversity and its conservation	Dr. Kumud Dubey, Scientist-E (CSFER), Prayagraj (UP) Ph. No.: 0532-2440795 E-mail: dkumud@yahoo.com						16-18						

Short Term Trainings to be conducted at ICFRE-Eco-Rehabilitation Centre Prayagraj (UP) Contact No. 0532-2440796

1. Essentials of clonal forestry:

Course Content: Concept of cloning, Conventional and Modern methods of Clonal Propagation Procedures, Clone development, deployment and testing.

2. Lac cultivation for improving livelihood:

Course Content: Overview of technologies for Lac cultivation, relevance in agroforestry plantations, harvesting and processing techniques of lac, value addition & marketing of end products and general management for improvement of livelihood.

3. Techniques for nursery and plantation management:

Course Content: Designing of nursery; Types of containers in nursery; Raising of plants of important species in nurseries; Collection, processing and storage of seed; Macro propagation; Maintenance of plantation; Pre-sowing treatments for enhancing seed germination; Significance of Potting mixture in nurseries.

4. Cultivation, processing, value addition, marketing & certification of medicinal plants :

Course Content: Nursery and plantation techniques of medicinal plants; introduction of good agriculture practices, collection, processing and storage of medicinal Plants. Value addition of different plant parts, marketing& certification of medicinal plants.

5. Bioremediation of industrial waste and problematic soil sites:

Course Content: Selection of Species; Sustainable reclamation including field study of affected sites; Plantation techniques with Microbial and Bio-solid treatments; moisture conservation techniques.

6. Bamboo Propagation, Management and Utilization:

Course Content : Botany and taxonomy of Bamboo, its utilization and resource distribution; Propagation and silvicultural management of bamboos, Bamboo cultivation and Conservation of bamboo genetic resources; Techniques in bamboo management; Techniques in bamboo management; Marketing and Trade of bamboo; Bamboo based entrepreneurship.

7. Agroforestry for sustainable land use and livelihood improvement:

Course Content: Tree crop combinations; site suitability of trees; procurement of quality planting material and other technical knowhow and marketing of end (timber & non timber) forest produces.

8. Bio-diversity and its conservation:

Course Content: Biodiversity, types of biodiversity, threats to biodiversity, microbial biodiversity, invasive species and its threat, biodiversity conservation



NOMINATIONS

Nomination letters for the courses to be conducted at F.R.I., Dehradun may be addressed to the Course Director of the concerned training and a copy may be sent to :

Head, Extension Division

ICFRE-Forest Research Institute

P.O. New Forest

Dehradun – 248 006 (Uttarakhand)

Phone: 0135 – 2758606

Fax: 0135 – 2756865

E-mail: headext@icfre.org Website: www.fri.res.in

The requisite course fees (through demand draft drawn in favour of the **Director, Forest Research Institute, Dehradun**, and payable at Dehradun) should reach on the above address at least 30 days before the commencement of the respective courses.

Participants are advised to commence their journey for the training only after getting confirmation about the course programme from the concerned Course Director at the telephone numbers.

COURSE FEES

Offline Mode

The course fees for STTC (including boarding & lodging charges) per participant is as follows:

- ▶ Rs. 11,000 for Indian nationals,
- ▶ Rs. 22,000 for SAARC countries, and
- ▶ Rs.40,000 for other foreign nationals.

Course fee for "Low-Cost Short Term training courses only for farmers, artisans, etc. is Rs. 5,500 per course.

Institutional charges @20% on course fees will be charged extra for each course.

The minimum number of participants for each course must be 10 (ten).

Online Mode

The course fees for STTC per participants is as follows :

- ▶ Rs. 6,000/- for Indian nationals
- ▶ Rs. 12,000/- for SAARC countries and
- ▶ Rs. 20,000/- for other foreign nationals.

Course fee for "Low-Cost Short Term training only for farmers, artisans etc.

- ▶ Rs. 5,000/- per participant

Minimum number of participants for each course must be 10 (ten).

Low-Cost Short Term Training Courses for Field Staff, Farmers, Artisans

The following Low-Cost Short Term training courses for non-gazetted staff, farmers, artisans, craftsman, gardeners etc, shall be conducted at FRI, Dehradun during 2024. These courses are designed as per the requirements of the sponsoring agencies.

1. Urban Tree Risk Management/Hazardous Avenue Trees

Course content: Pathological and Entomological problems, Physiological stress and soil condition, Health categorization of trees, Risk assessment, Preventive and remedial measures, Field visit.

Tentative date: 5th-7th August, 2024

Course Director: Dr. Shailesh Pandey, Scientist- E, Forest Pathology Discipline, Forest Protection Division
Ph.No.: 0135-222-4226

2. Vesicular Arbuscular Mycorrhiza (VAM) mass production

Course content: Growth promoting microorganisms, Vesicular Arbuscular Mycorrhiza (VAM), Soil mixture preparation, Mycorrhizal culture inoculation, age selection of planting material, Ideal application of mycorrhizal inoculums, ex vitro mycorrhizal inoculation, Mycorrhiza and microbial products – an overview on market, products and legislation, Innovative mycorrhiza production/products, Field visit.

Tentative date: 11th-13th December, 2024

Course Director: Dr. Vipin Prakash, Scientist- F, Forest Pathology Discipline **Ph.No.:** 0135-222-4314

3. Edible/Medicinal Mushroom Cultivation

Course content: Benefits of mushroom consumption, Wild edible and poisonous mushrooms, Important commercially cultivated mushrooms in India and world, Different substrates for spawn (Edible/Medicinal), Media preparation, Sterilization, isolation, culture maintenance and preservation, subculturing, Mushroom cultivation : an agribusiness activity, status: world, national and state scenario, opportunities and constraints, Oyster and Ganoderma cultivation and medicinal uses, Hands on Spawn preparation, substrate treatment, bag preparation, spawn mixing, harvesting, utilization, Ophicordyceps sinensis, its medicinal uses and importance, Mushroom spawn: quality attributes, storage and transport, Mushroom processing and preservation (drying/ dehydration, pickling and canning), Acquaintance with mushroom contaminants, Field/Museum visit.

Tentative date: 16th-18th October, 2024

Course Director: Dr. Shailesh Pandey, Scientist- E, Forest Protection Division **Ph.No.:** 0135-222-4313

4. Mass multiplication of Biocontrol agent Trichoderma

Course Content: Benefits of using Trichoderma, Mechanism of action, Media preparation, isolation, culture maintenance and preservation, Spawn preparation, Different agroforestry substrates for mass production, Hands-on guidance on implementing Trichoderma, effective application methods, Field visit.

Tentative date: 16th-18th August, 2024

Course coordinator: Dr. Shailesh Pandey, Scientist- E, ICFRE-FRI, Forest Pathology Discipline, Forest Protection Division
Contact: 0135-222-4313

5. Harnessing Nature's Bounty, Essential Oils and Natural Dyes for Livelihood Generation

Course Content: Overview of essential oils and natural dyes, National and international market potential of essential oils and natural dyes, Techniques for extraction of essential oils from aromatic plants, Physicochemical assessment of essential oils for quality control. Value addition of essential oils, Industrial application of essential oils, Techniques for extraction of natural dyes from plant biomass. Techniques for dyeing of silk, wool and cotton fabrics with natural with natural dyes, & Testing methods to assess color fastness and durability of natural dyes.

Tentative date: 08th-12th July, 2024

Course Director: Dr. V.K. Varshney, Head, Chemistry & Bioprospecting Division, ICFRE-FRI **Ph.No.** 0135-222-4313

6. कृषिवानिकी एवं बाजारीकरण व्यवस्था

Course contents : कृषिवानिकी एवं कृषि वानिकी पद्धतियों के प्रकार, मुख्य कृषिवानिकी प्रजातियां एवं उनका कृषिवानिकी में स्थापन, कृषिवानिकी उपज आकलन एवं बाजारीकरण व्यवस्था।

Tentative Dates : 18th to 20th September, 2024

Course Director: Dr. Charan Singh, Scientist-E, Extension Division, ICFRE-FRI **Ph. No :** 0135-222 4355